

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte LARRY WILLIAM MASSINGILL, TORBJORN WILSON SOLVE,
RICHARD E. WEISS, YI-PIN ERIC WANG, and KUMAR BALACHANDRAN

Appeal No. 2003-0506
Application No. 09/264,766

ON BRIEF

Before BARRETT, BARRY, and LEVY, *Administrative Patent Judges*.
BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

A patent examiner rejected claims 1-45. The appellants appeal therefrom under 35 U.S.C. § 134(a). We affirm.

BACKGROUND

The invention at issue on appeal concerns radiotelephone satellite communications ("SATCOM"). (Spec. at 1.) A radiotelephone SATCOM system provides communications to and from mobile user terminals by establishing radiotelephone communications links with the terminals. (*Id.* at 12-13.) For example, a link may be established for a call placed by a telephone coupled to a public switched

telephone network or for a call placed by a mobile terminal coupled to a satellite of the system. (*Id.* at 13.)

A blockage by a building or tree may render a mobile terminal "disadvantaged," (*id.* at 3); the appellants' invention is aimed at transmitting messages to such a terminal. (*Id.* at 9.) More specifically, a mobile terminal receives a communication from a base station via a first channel; the communication indicates a pending message. If disadvantaged, the terminal monitors a second channel identified in the communication. Upon determining that the terminal is disadvantaged, the base station broadcasts the pending message to the terminal via the second channel. (*Id.*, *abs.*) A further understanding of the invention can be achieved by reading the following claim.

1. A method of communicating radiotelephone messages from a base station to a remote, disadvantaged user terminal having an identifier associated therewith, the method comprising the steps of:

broadcasting from the base station to the user terminal the associated terminal identifier along with an indication of a pending message on a first forward-only radiotelephone channel;

determining if the user terminal is disadvantaged; and

responsive to determining that the user terminal is disadvantaged, broadcasting the message from the base station to the user terminal on a second forward-only radiotelephone channel, wherein the second forward-only radiotelephone channel is identified with the indication of a pending message via the first forward-only radiotelephone channel.

Claims 1-14 and 17-45 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,594,776 ("Dent") and U.S. Patent No. 5,644,568 ("Ayerst").

Claims 15 and 16 stand rejected under § 103(a) as obvious over Dent; Ayerst; and U.S. Patent No. 5,822,310 ("Chennakeshu").

OPINION

"[T]o assure separate review by the Board of individual claims within each group of claims subject to a common ground of rejection, an appellant's brief to the Board must contain a clear statement for each rejection: (a) asserting that the patentability of claims within the group of claims subject to this rejection do not stand or fall together, and (b) identifying which individual claim or claims within the group are separately patentable and the reasons why the examiner's rejection should not be sustained." *In re McDaniel*, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002) (citing 37 C.F.R. §1.192(c)(7) (2001)). "If the brief fails to meet either requirement, the Board is free to select a single claim from each group of claims subject to a common ground of rejection as representative of all claims in that group and to decide the appeal of that rejection based solely on the selected representative claim." *Id.*, 63 USPQ2d at 1465.

Here, the appellants stipulate, "[i]ndependent [c]laims 1, 17, 23, 33, and 36 (Group I) may be considered as standing or falling together." (Appeal Br. at 3.)

Furthermore, they do not argue the patentability of the dependent claims. Therefore, claims 2-14 and 17-45 stand or fall with representative claim 1. With this representation in mind, rather than reiterate the positions of the examiner or the appellants *in toto*, we focus on the following three points of contention therebetween:

- indication of pending message
- combination of Dent and Ayerst
- responsiveness of broadcast on second channel.

A. INDICATION OF PENDING MESSAGE

The examiner finds that "Ayerst (col. 2, lines 10-22)," (Examiner's Answer at 4), discloses that "[t]he first channel broadcasts a vector which indicates indicates [sic] a pending message (the long message) that is to be broadcast on the second channel." (*Id.*) The appellants argue, "Ayerst fails to disclose a base station that broadcasts on a first channel *an indication of a pending message* that is to be broadcast on a second channel along with an identity of the second channel." (Appeal Br. at 9.)

In addressing the point of contention, the Board conducts a two-step analysis. First, we construe the representative claim at issue to determine its scope. Second, we determine whether the construed claim would have been obvious.

1. Claim Construction

"Analysis begins with a key legal question -- *what* is the invention *claimed*?" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). In answering the question, "the Board must give claims their broadest reasonable construction. . . ." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1668 (Fed. Cir. 2000). "Moreover, limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184, 26 USPQ2d 1057, 1059 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)).

Here, claim 1 recites in pertinent part the following limitations: "broadcasting from the base station to the user terminal the associated terminal identifier along with an indication of a pending message on a first forward-only radiotelephone channel. . . ." Giving the representative claim its broadest, reasonable construction, the limitations require broadcasting an indication of a pending message.

2. Obviousness Determination

Having determined what subject matter is being claimed, the next inquiry is whether the subject matter would have been obvious. The question of obviousness is "based on underlying factual determinations including . . . what th[e] prior art teaches

explicitly and inherently. . . ." *In re Zurko*, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966); *In re Dembiczak*, 175 F.3d 994, 998, 50 USPQ 1614, 1616 (Fed. Cir. 1999); *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995)).

Here, Ayerst discloses a "transmission format of an outbound signaling protocol. . ." Col. 8, l. 61. "The signaling protocol is subdivided into protocol divisions, which [include] an hour 310, a cycle 320, [and] a frame 330. . ." Col. 8, l. 67 - col. 9, l. 2. "A frame 330 is further defined to be one of two specific types. . . . The first type of frame 330 is a control frame 360." Col. 9, ll. 32-34. "Information is included in each control frame 360 in fields, comprising system information in a system information field (SI) 332, one or more selective call addresses with subvectors in an address field (AF) 333, [and] one or more of a set of vector packets. . . ." *Id.* at ll. 35-40.

The appellants admit that the vectors "indicate that a long message is transmitted on a second channel different than the channel that a user terminal uses to receive or detect the vector." (Appeal Br. at 7.) For its part, the reference explains that "[t]he vectors contain information which specifies the starting word of a long message, in terms of the protocol divisions described above, and additionally, radio channel

information such as radio channel frequency. . . ." Col. 10, ll. 13-16. We find that the indication of a long message constitutes an indication of a pending message.

B. COMBINATION OF DENT AND AYERST

The examiner finds, "[i]t would have been obvious to modify Dent with Ayerst, such that the second channel is identified with an indication of the pending message via the first channel, in order to conserve the power of the user terminal." (Final Rejection¹ at 3.) The appellants argue, "there is no suggestion in Dent or Ayerst that would motivate one skilled in the art to combine their relevant teachings" (Appeal Br. at 8.)

"The presence or absence of a motivation to combine references in an obviousness determination is a pure question of fact." *In re Gartside*, 203 F.3d 1305, 1316, 53 USPQ2d 1769, 1776 (Fed. Cir. 2000) (citing *In re Dembiczak*, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). "[T]he question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *In re Beattie*, 974 F.2d 1309, 1311-12, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992) (quoting *Lindemann Maschinenfabrik GMBH v.*

¹"We advise the examiner to copy his rejections into his examiner's answers," *Ex parte Metcalf*, 67 USPQ2d 1633, 1635 (Bd. Pat. App. & Int. 2003), rather than merely referring to a "rejection . . . set forth in prior Office Action. . . ." (Examiner's Answer at 3.)

American Hoist & Derrick Co., 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984)). "[E]vidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. . . ." *Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617 (citing *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996); *Para-Ordnance Mfg. v. SGS Imports Int'l, Inc.*, 73 F.3d 1085, 1088, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995)).

Here, we find that evidence to combine flows from the references themselves. For its part, Dent "efficiently pag[es] a mobile phone in a radio communication system having a plurality of mobile phones." Col. 2, ll. 45-46. Specifically, "a first paging signal is transmitted for a mobile phone on a first try channel." *Id.* at ll. 47-48. If the mobile phone does not acknowledge the first paging signal "because the mobile phone is temporarily shadowed from the transmitter while passing under a bridge or past a tall building," *id.* at ll. 25-28, "the call is transferred to at least a second try channel. A second paging signal is then transmitted for the first mobile phone on at least the second channel." *Id.* at ll. 50-53.

Although the disadvantaged mobile phone can switch channels, Dent does not detail how the mobile phone identifies the second channel. The reference recognizes,

however, that its "invention can be embodied in other specific forms. . . ." Col. 8, ll. 63-64. We find that the omission of detail and the recognition of alternative embodiments invites the use of known techniques of channel identification.

Ayerst discloses a known technique of channel identification. Specifically, "Ayerst describes using a vector on a first channel to notify a user terminal that a long message may be received on a second channel." (Appeal Br. at 9.) The reference explains that once a recipient radio "decodes a starting position and length of [the] long message," col. 18, ll. 31-32, it "switches to the low power mode at the end of the vector packet to conserve battery life." *Id.* at ll. 34-35. The radio "switches to the normal power mode before the beginning of the long message," *id.* at ll. 36-37, and switching back "to low power mode at the end of the long message to conserve battery life." *Id.* at ll. 42-43. We agree with the examiner's finding that employing Ayerst's technique of channel identification in Dent's radio communication system so that a mobile terminal would have identified a second channel via an indication sent on the first channel would have saved that terminal from having to scan plural channels and would have conserved battery power. (Examiner's Answer at 4.) Because Dent invites the use of known techniques of channel identification, and Ayerst discloses a technique that saves scanning and conserves power, we are persuaded that the references would have

suggested employing Ayerst's technique of channel identification in Dent's radio communication system.

C. RESPONSIVENESS OF BROADCAST ON SECOND CHANNEL

The examiner finds that in Dent "[a] determination is made if the user terminal is disadvantaged, and responsive to determining that the user terminal is disadvantaged, the message is then broadcast from the base station to the user terminal on a second forward-only radiotelephone channel. See . . . col. 2, lines 15-39, and col. 3, lines 41-59." (Final Rejection at 2.) The appellants argue that in Ayerst "[t]he long message is not transmitted on the second channel in *response* to a determination that the user terminal is disadvantaged. . . ." (Appeal Br. at 9.)

1. Claim Construction

Claim 1 recites in pertinent part the following limitations: "responsive to determining that the user terminal is disadvantaged, broadcasting the message from the base station to the user terminal on a second forward-only radiotelephone channel, wherein the second forward-only radiotelephone channel is identified with the indication of a pending message via the first forward-only radiotelephone channel." Giving the representative claim its broadest, reasonable construction, the limitations require broadcasting on a second channel if a user terminal is disadvantaged.

2. Obviousness Determination

"Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references." *In re Merck*, 800 F.2d, 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981)). "Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1025, 226 USPQ 881, 886-87 (Fed. Cir. 1985) (quoting *Keller*, 642 F.2d at 425, 208 USPQ at 881). *Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)).

Here, the rejection is based on the combined teachings of Dent and Ayerst. We find that the former reference broadcasts a message on a second channel if a user terminal is disadvantaged. As aforementioned, "a first paging signal is transmitted for a mobile phone on a first try channel." Col. 2, ll. 47-48. If the mobile phone does not acknowledge the first paging signal "because the mobile phone is temporarily shadowed from the transmitter while passing under a bridge or past a tall building," *id.* at ll. 25-28, "the call is transferred to at least a second try channel. A second paging signal is then transmitted for the first mobile phone on at least the second channel." *Id.* at ll. 50-53. When Ayerst's technique of channel identification was employed in Dent's radio communication system, we are persuaded that the combined teachings would

have suggested broadcasting on a second channel if a user terminal is disadvantaged. Therefore, we affirm the rejection of claim 1 and of claims 2-14 and 17-45, which fall therewith.

Not separately arguing the patentability of claims 15 and 16, the appellants implicitly rely on the aforementioned arguments. Having been unpersuaded by those arguments, we affirm the rejection of claims 15 and 16.

CONCLUSION

In summary, the rejections of claims 1-45 under § 103(a) are affirmed. "Any arguments or authorities not included in the brief will be refused consideration by the Board of Patent Appeals and Interferences. . . ." 37 C.F.R. § 1.192(a). Accordingly, our affirmance is based only on the arguments made in the brief. Any arguments or authorities not included therein are neither before us nor at issue but are considered waived. *Cf. In re Watts*, 354 F.3d 1362, 1368, 69 USPQ2d 1453, 1457 (Fed. Cir. 2004) ("[I]t is important that the applicant challenging a decision not be permitted to raise arguments on appeal that were not presented to the Board.") No time for taking any action connected with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

LEE E. BARRETT
Administrative Patent Judge

LANCE LEONARD BARRY
Administrative Patent Judge

STUART S. LEVY
Administrative Patent Judge

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